AMENDMENTS TO THE CLAIMS

Please amend the claims as follows, without prejudice or disclaimer. This claim listing replaces all prior claim listings.

1. (Currently amended) An expression vector for expressing carcinoembryonic antigen (CEA) in a cell, the vector comprising ~~the nucleic acid sequence CEA(6D) 1,2 as illustrated in~~ the nucleic acid molecule of SEQ ID NO.: 28 ~~and Figure 9 or a fragment thereof~~.
2. (Original) The expression vector of claim 1 wherein the vector is a plasmid or a viral vector.
3. (Original) The expression vector of claim 2 wherein the viral vector is selected from the group consisting of poxvirus, adenovirus, retrovirus, herpesvirus, and adeno-associated virus.
4. (Previously presented) The expression vector of claim 3 wherein the poxvirus is selected from the group consisting of vaccinia, NYVAC, avipox, canarypox, ALVAC, ALVAC(2), fowlpox, and TROVAC.
5. (Previously presented) The expression vector of claim 4 wherein the poxvirus is selected from the group consisting of NYVAC, ALVAC, and ALVAC(2).
6. (Previously presented) The expression vector of claim 1 further comprising at least one additional nucleic acid encoding a tumor-associated antigen.
7. (Original) The expression vector of claim 6 wherein the vector is a plasmid or a viral vector.
8. (Original) The expression vector of claim 7 wherein the viral vector is selected from the group consisting of poxvirus, adenovirus, retrovirus, herpesvirus, and adeno-associated virus.
9. (Previously presented) The expression vector of claim 8 wherein the poxvirus is selected from the group consisting of vaccinia, NYVAC, avipox, canarypox, ALVAC, ALVAC(2), fowlpox, and TROVAC.
10. (Previously presented) The expression vector of claim 9 wherein the poxvirus is selected from the group consisting of NYVAC, ALVAC, and ALVAC(2).
11. (Original) The expression vector of claim 1 further comprising at least one nucleic sequence encoding an angiogenesis-associated antigen.

12. (Original) The expression vector of claim 11 wherein the vector is a plasmid or a viral vector.

13. (Original) The expression vector of claim 12 wherein the viral vector is selected from the group consisting of poxvirus, adenovirus, retrovirus, herpesvirus, and adeno-associated virus.

14. (Previously presented) The expression vector of claim 13 wherein the poxvirus is selected from the group consisting of vaccinia, NYVAC, avipox, canarypox, ALVAC, ALVAC(2), fowlpox, and TROVAC.

15. (Previously presented) The expression vector of claim 14 wherein the poxvirus is selected from the group consisting of NYVAC, ALVAC, and ALVAC(2).

16. (Original) The expression vector of claim 6 further comprising at least one nucleic sequence encoding an angiogenesis-associated antigen.

17. (Original) The expression vector of claim 16 wherein the vector is a plasmid or a viral vector.

18. (Original) The expression vector of claim 17 wherein the viral vector is selected from the group consisting of poxvirus, adenovirus, retrovirus, herpesvirus, and adeno-associated virus.

19. (Previously presented) The expression vector of claim 18 wherein the poxvirus is selected from the group consisting of vaccinia, NYVAC, avipox, canarypox, ALVAC, ALVAC(2), fowlpox, and TROVAC.

20. (Previously presented) The expression vector of claim 19 wherein the poxvirus is selected from the group consisting of NYVAC, ALVAC, and ALVAC(2).

21. (Original) The expression vector of claim 1, 6, 11 or 16 further comprising at least one nucleic acid sequence encoding a co-stimulatory component.

22. (Previously presented) The expression vector of claim 21 wherein the vector is a plasmid or a viral vector.

23. (Previously presented) The expression vector of claim 22 wherein the viral vector is selected from the group consisting of poxvirus, adenovirus, retrovirus, herpesvirus, and adeno-associated virus.

24. (Previously presented) The expression vector of claim 23 wherein the viral vector is a poxvirus selected from the group consisting of vaccinia, NYVAC, avipox, canarypox, ALVAC, ALVAC(2), fowlpox, and TROVAC.

25. (Previously presented) The expression vector of claim 24 wherein the poxvirus is selected from the group consisting of NYVAC, ALVAC, and ALVAC(2).

26. (Currently amended) A composition comprising an expression vector comprising the nucleic acid sequence ~~CEA(6D)-1,2 as illustrated in~~ of SEQ ID NO.: 28 and ~~Figure 9 or a fragment thereof in~~ a pharmaceutically acceptable carrier.

27. (Previously presented) The composition of claim 26 wherein the vector is a plasmid or a viral vector.

28. (Previously presented) The composition of claim 27 wherein the viral vector is selected from the group consisting of poxvirus, adenovirus, retrovirus, herpesvirus, and adeno-associated virus.

29. (Previously presented) The composition of claim 28 wherein the viral vector is a poxvirus selected from the group consisting of vaccinia, NYVAC, avipox, canarypox, ALVAC, ALVAC(2), fowlpox, and TROVAC.

30. (Previously presented) The composition of claim 29 wherein the viral vector is a poxvirus selected from the group consisting of NYVAC, ALVAC, and ALVAC(2).

31-35. Canceled.

36. (Currently amended) An isolated DNA molecule comprising the ~~CEA(6D)-1,2 sequence illustrated in~~ nucleic acid sequence of SEQ ID NO.: 28 ~~and Figure 9~~.

37. Canceled.

38. (Currently amended) An expression vector comprising ~~a~~ the nucleic acid of SEQ ID NO: 28.

39. (Previously presented) The expression vector of claim 38 further comprising a nucleic acid sequence encoding a co-stimulatory molecule.

40. (Previously presented) The expression vector of claim 39 wherein the co-stimulatory molecule is human B7.1.

41. (Previously presented) The expression vector of claim 38 further comprising a nucleic acid sequence encoding at least one additional tumor-associated antigen.

42. (Previously presented) The expression vector of claim 38 further comprising a nucleic acid sequence encoding at least one angiogenesis-associated antigen.

43. (Previously presented) A composition comprising an expression vector of any one of claims 38-42 in a pharmaceutically acceptable carrier.

44. (Currently amended) An isolated nucleic acid molecule comprising the nucleic acid sequence of SEQ ID NO: 28.

45. (Currently amended) An isolated nucleic acid molecule comprising a CEA-encoding nucleic acid sequence ~~fragment of SEQ ID NO: 28, the fragment~~ including at least nucleotides 421-1490 ~~thereof~~ SEQ ID NO.: 28.

46. (Previously presented) The isolated nucleic acid molecule of claim 44 or 45 further comprising a nucleic acid sequence encoding a co-stimulatory molecule.

47. (Previously presented) The isolated nucleic acid molecule of claim 46 wherein the co-stimulatory molecule is human B7.1.

48. (Previously presented) The isolated nucleic acid molecule of claim 44 or 45 further comprising a nucleic acid sequence encoding at least one additional tumor-associated antigen.

49. (Previously presented) The isolated nucleic acid molecule of claim 44 or 45 further comprising a nucleic acid sequence encoding at least one angiogenesis-associated antigen.

50. (Previously presented) A composition comprising an isolated nucleic acid molecule of any one of claims 44-49 in a pharmaceutically acceptable carrier.

51. (New) An expression vector comprising the CEA-encoding nucleic acid sequence of SEQ ID NO.: 28.

52. (New) An isolated nucleic acid molecule encoding a CEA polypeptide, the nucleic acid molecule comprising a nucleic acid sequence that hybridizes under highly stringent conditions to nucleotides 429-1488 of SEQ ID NO.: 28.

53. (New) A CEA-encoding nucleic acid molecule that hybridizes under highly stringent conditions to nucleotides 429-1488 of SEQ ID NO.: 28.

54. (New) A CEA-encoding nucleic acid molecule that hybridizes under highly stringent conditions to nucleotides 429-876 of SEQ ID NO.: 28.

55. (New) A CEA-encoding nucleic acid molecule that hybridizes under highly stringent conditions to the AccI-BamHI fragment of SEQ ID NO.: 28.

56. (New) A CEA-encoding nucleic acid molecule that hybridizes under highly stringent conditions to nucleotides 891-1488 of SEQ ID NO.: 28.

57. (New) A CEA-encoding nucleic acid molecule that hybridizes under highly stringent conditions to the BamHI-Bsu361 fragment of SEQ ID NO.: 28.

58. (New) A nucleic acid molecule encoding an antigen, wherein the nucleic acid molecule hybridizes under highly stringent conditions to nucleotides 429-1488 of SEQ ID NO.: 28.

59. (New) A nucleic acid molecule encoding an antigen, wherein the nucleic acid molecule hybridizes under highly stringent conditions to nucleotides 429-876 of SEQ ID NO.: 28.

60. (New) A nucleic acid molecule encoding an antigen, wherein the nucleic acid molecule hybridizes under highly stringent conditions to the AccI-BamHI fragment of SEQ ID NO.: 28.

61. (New) A nucleic acid molecule encoding an antigen, wherein the nucleic acid molecule hybridizes under highly stringent conditions to nucleotides 891-1488 of SEQ ID NO.: 28.

62. (New) A nucleic acid molecule encoding an antigen, wherein the nucleic acid molecule hybridizes under highly stringent conditions to the BamHI-Bsu361 fragment of SEQ ID NO.: 28.

63. (New) A nucleic acid molecule of any one of claims 51-62, the nucleic acid molecule further comprising at least one nucleic acid sequence encoding a co-stimulatory component.

64. (New) The nucleic acid molecule of claim 63 wherein the co-stimulatory component is human B7.1.

65. (New) An expression vector comprising the nucleic acid molecule of any one of claims 51-64.

66. (New) A composition comprising the expression vector of claim 65 and a pharmaceutically acceptable carrier.